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ABSTRACT

The curricula and history of the four war colleges are examined to try to determine the model or models of curriculum development utilized at each, and the way the curriculum of each is revised. Four models of curriculum design, the academic, experimental, technical and pragmatic models, are reviewed. After reviewing the history and curriculum of the Naval War College, the Army War College, the National War College, and the Air War College, it is concluded that the most likely models were an academic-technico combination. Since the Naval War College was founded first, it is logical to assume that the model employed by that institution was the basis for curriculum planning at the other institutions. Revision of the War College curricula is considered to be pragmatic. Contains 15 references. (KM)

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AN INVESTIGATION OF THE CURRICULUM DEVELOPMENT PROCESS AT THE FOUR WAR COLLEGES

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Introduction

Theories and models are not simple academic abstractions designed to cloud the unknown, but are sincere attempts to either philosophically or empirically explain events which in fact do occur or are thought to occur. They provide us with a baseline upon which we can build understanding. In our case here, we are concerned with the development of curriculum at the four United States War Colleges. It is important to remember that theories and models are present whether or not we acknowledge such, for when we have not defined them they exist by default.

The purpose of this paper is to try and identify the model or models of curriculum development used to establish the curricula at the four war colleges, and then suggest how the curriculum of each is revised. An understanding of this process will provide the reader with an historical background explaining how the process was begun, how the curricula got to where it is now, and then how it can be influenced or revised in the future.

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Four Models of Design

Robert Zais, a noted curriculum theorist, states "Curriculum construction in the United States is generally conducted in a shockingly piece meal and superficial fashion."[1] This statement pertains to not only the public school system, but higher education as well. Each of the four war colleges, Air War College, Army War College, National War College, and Naval War College, have written curricula. Geneva Gay has described four curriculum development models which enable us to conceptualize the curriculum planning process. Although the formation of the original curriculum for each of the four institutions has been lost in the institutional memory of the respective institution, it is possible to determine which process or processes were used to develop the original curriculum. This knowledge will help us to better understand the aims. goals and objectives of the institution. It is also helpful to understand these models because we can then review the curriculum revision process and identify those factors which impact on curriculum change and revision.

The four models Gay identifies are the academic model, experimental model, technical model and pragmatic model. Gay reminds us that models although based on theory are not pure. Elements of each typically influence the process. During the curriculum development process, however, one model dominates thereby establishing the form of the curriculum as academic, experimental, technical or pragmatic.

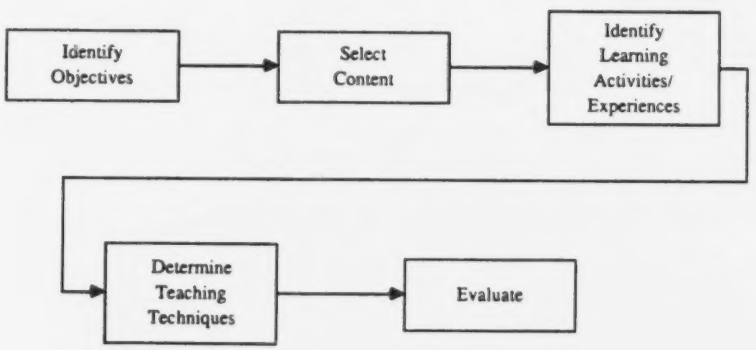

figure 1

The Academic Model, according to Gay, is based on the use of scholarly logic in its development. The model (figure 1) has five elements which are: objectives, content, learning activities, teaching techniques and evaluation procedures. The objectives of the curriculum (figure 2) are determined by learner characteristics, needs of society, subject matter disciplines, philosophy and the psychology of learning. Learner characteristics are important because these help develop a learner profile. Who is going to be taught? What experiences have the learners already had? And, What do we have to teach them to have them exit the institution with the tools, skills and knowledges needed to adequately perform the tasks and functions required of them?

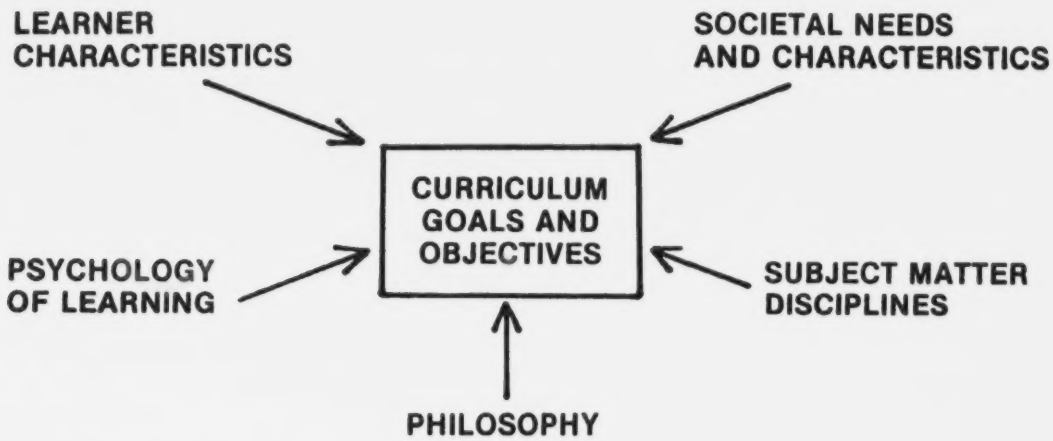

figure 2

The needs of the society also influence this process. Education at all levels reflects certain needs of the society. These needs must be identified and the curriculum must reflect them. This requirement will become clearer later on in the paper. In addition, historical expectations provide insight and direction for curriculum goals especially with regard to these four institutions.

Subject matter disciplines also greatly influence the educational goals and objectives of the institution. Subject matter disciplines provide "substantive content and syntactical processes for intellectual skill development."[2]

A third factor in goals determination is philosophy. The educational philosophy underlying the curriculum sets the tone. It also establishes the framework for the values, beliefs, knowledge of what is important to the society. These three are reflected in the curriculum.

Psychology of learning is the final factor in the development of curriculum objectives. The influence of the psychology of learning cannot be over emphasized. Conceptualization of the learning process impacts on the content, learning activities, teaching techniques to be employed, and the evaluation process. Without this input the curriculum development process, according to those who follow this model, is awash. The methodology of presenting the objectives to the learner is unknown if this factor is overlooked.

After objectives have been determined then the content is selected. Content is based upon the curriculum objectives. Content is what is going to actually be taught by the institution. Content is not limited to what goes on in the classroom. It includes all the activities sponsored by the institution. In the war colleges the networking process encouraged by the various activities is an example of content beyond that formally taught in the class setting.

Curriculum content, as do the learner characteristics, psychology of learning and subject disciplines, greatly influences teaching techniques. Different content materials lend themselves to different ways of presentation. What is appropriate for one part of the curriculum is not appropriate to other parts. Thus, the teaching techniques to be employed are most important in the curriculum planning process.

Knowing how the educational process will be evaluated is the final element in the Academic Model. All too frequently this phase is omitted, even though it is a part of most models. Often, the only thing evaluated is student performance. It is important for the curriculum to be evaluated at several levels simultaneously so that revision is based on fact and not perception.

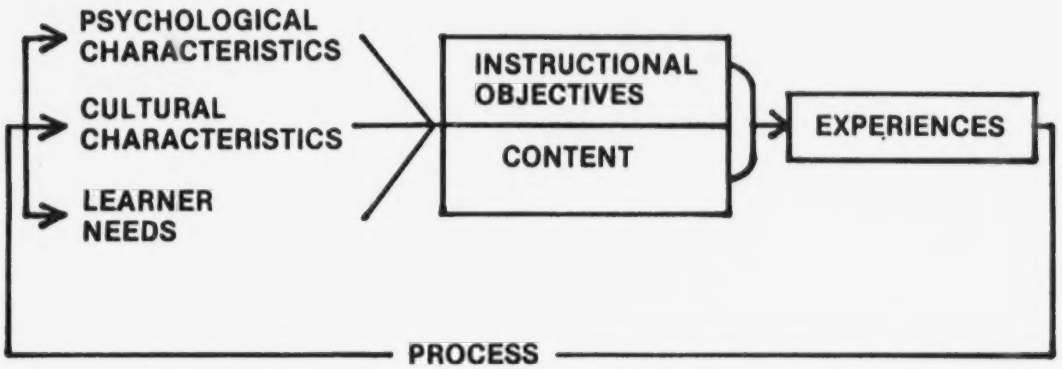

figure 3

Gay's second model is the Experimental Model (figure 3). The Experimental Model is more subjective, personal, heuristic and transactional.[3] It is also a learner-centered approach to curriculum planning and design. Although the underlying philosophy of this model was not prevalent when the Naval War College was founded, for example, its consideration as a model of curriculum development cannot be overlooked. The typical learning programs included in this model are self-directed, self-paced, unstructured and personalized instructional programs.

Psychological characteristics of the learner and the environment are one input to the instructional objectives/content block of the curriculum development process. A second input is cultural characteristics. Cultural characteristics include society as a whole as well as its subcultures. Thus, when developing a War College curriculum the needs, wants, expectations and social elements of the American society would be important. But, so would the characteristics of the military subculture. Each of the services has its own traditions, norms and taboos. The curriculum objectives and content would reflect these traditions, norms and taboos. Learner needs is the third and final input to the objectives/content block. The learner needs described in the academic model are reflected in the experimental as well.

Instructional Objectives and Curriculum Content are, according to Gay, so interrelated that they are developed almost simultaneously. In addition, the elements of each move back and forth so rapidly and frequently as to create an interaction analogous to the exchange of oxygen and carbon dioxide between cell walls in the human body. A continuous process of exchange, therefore, is created.

Experiences, which comprise the final element of the curriculum, are those activities designed to convey the curriculum objectives and content to the learner. These activities are flexible and determined by the specific thing being taught at that time. Certain activities lend themselves better to different content material. The structure, then, has an ongoing process-orientation. All curricula have revision elements built-in, the experimental curriculum is more lenient and ongoing then the other models. In short, this model was and continues to be an inappropriate method of curriculum development and revision for military institutions.

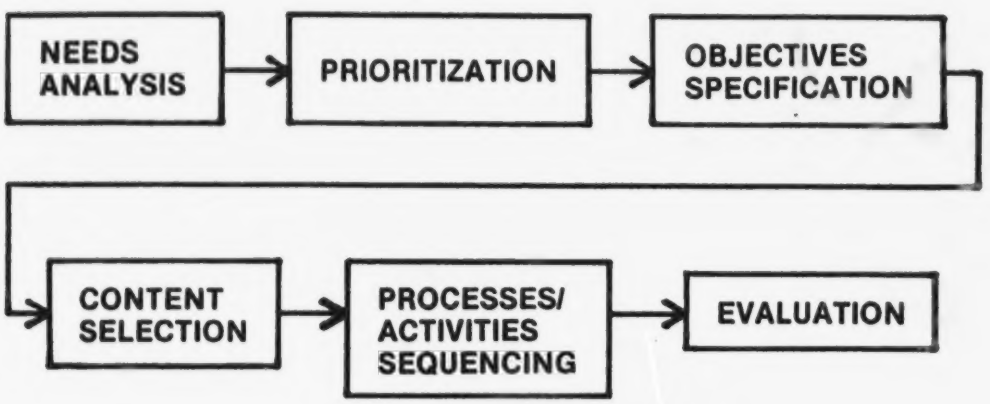

figure 4

In 1918 Franklin Bobbitt published his book The Curriculum which was the first comprehensive book on curriculum development. In this book he developed the concept of 'activity analysis' which was, perhaps, the forerunner to job and task analysis. He also conceived the concept of 'expert model' and the adult curriculum designed to teach learners how to perform successfully in adult life. Needs analysis is the first element in the Technical Model (figure 4).

The results of the needs analysis is a listing of those tools, skills and knowledges necessary for a person to adequately function in a certain environment. The expert model epitomizes the most correct way to function in that environment. It is obvious that an institution cannot devote the time required to teach each learner to that desired level or performance as a result these tools, skills and knowledges must be prioritized. This is the second step in the Technical Model. Prioritization is streamlined by several factors one of which is the accumulated tools, skills, and knowledges already possessed by the learner before he or she enters the formal learning environment.

After prioritization, curriculum objectives are specified. The question of "what are the desired outcomes?" is asked, answered, and expressed. Expression is typically stated empirically. A levels below that of higher education these outcomes are described in behavioral objective format, with conditions identifying when the behaviors will be manifest and with the desired level of proficiency.

Once these have been delineated then they are translated into specific instructional objectives. The instructional objectives are next sequenced so that they are fitted together in a logically flowing form. Activities are grouped together so that they are mutually reinforcing and cognitive fallout between activities is minimized. This allows for closure in the cognitive development process. Finally, the educational process is evaluated. As previously stated evaluation ought to span several levels. In the case of the four war colleges it does.

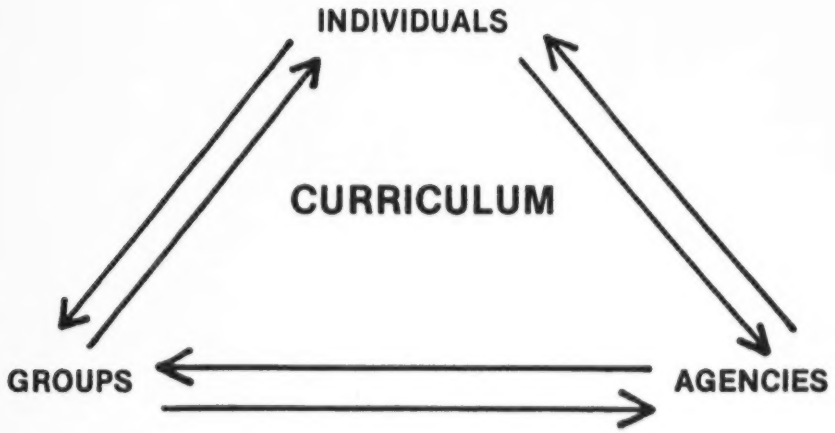

figure 5

Gay's final model of curriculum planning and development is the Pragmatic Model (figure 5). In this model curriculum development is, in reality, a political process. The curriculum, its goals, objectives, content, organization, and methods of evaluation, is a result of an ongoing interaction between individuals, groups, and agencies. This interaction is continuous and establishes the formula for curriculum revision. Having read the histories of the four war colleges it seems apparent that this model, like the experimental model, was not used during the original curriculum development process for any of the schools. However, it is just as apparent that this model dominates the curriculum revision process at each institution.

Naval War College

William E. Chandler, the Secretary of the Navy, established the Naval War College on 6 October 1884. The purpose for the War College was for advanced professional study of Naval Officers. He selected Rear Admiral Stephen B. Luce to be the first President. This institution is the oldest such college of professional military studies in the world.

Both the purpose of the college and the title given its first president suggests at least possible thoughts on the development of the curriculum. First, since it was to be an institution of advanced professional study in a technical discipline an argument can be made for a Technical Model of curriculum development. Second, since the title given the head of this institution was

that of President and Commandant it is logical to conclude that an academic atmosphere existed during the curriculum development process. It must be remembered, however, that these two models for curriculum development had not yet been articulated, although they possibly existed in practice.

Admiral Luce appreciated the interrelationship existing between naval power, technology and international politics. He also realized that naval officers of that period were deficient in their knowledge in these areas. He saw the War College as the primary means to remedy the lack of knowledge Naval officers had in these areas. He summed his thoughts in the following statement:

> "Fancy a university man aspiring to the honors of the legal profession and ignoring the law school and the science of law...It must strike anyone who thinks about it as extraordinary that we members of the profession of arms should never have undertaken the study of our real business."[4]

He made the War College "a place of original research on all questions relating to war and the statesmanship connected with war, or the prevention of war."[5] His faculty included naval officers, officers of the other services and civilian scholars. The curriculum was divided into instruction of three vital areas which were strategy, naval tactics and operations, and geopolitics. These were taught through lectures, readings and seminars. Since the subject areas covered by the curriculum were both very academic and technically oriented it seems that the type of curriculum development model used was an academic/technical combination.

Credence is given this form of curriculum development by the fact that Captain Alfred Thayer Mahan developed the course in naval history. His works influenced not only Theodore Roosevelt and Henry Cabot Lodge, but Kaiser Wilhelm and senior British naval officers and academians at Oxford and Cambridge. This academic orientation of naval history suggests the value of accumulated knowledge which is an Academic Model trait.

A Technical Model is supported by practical and relevant applications of naval science in the curriculum. The incorporation of a systematic method of tactical analysis, similar to that used to teach the German General Staff, provides additional support for this model. The combination of the two models, I believe, is supported by the fact that the Naval War College was the planning agency and laboratory for the Navy Department between 1890 and 1914. It is between those years that almost all the war plans developed for the Navy were prepared and evaluated by the War College. Preparation and evaluation were achieved through a combination of academic research and war gaming.

Revision of the original curriculum "has evolved over many decades to meet the changing perceptions of our naval leadership as to the educational needs of our mid and upper grade naval officers."[6] Although each of the Presidents of the Naval War College have tweaked the curriculum, the last formal review of the curriculum was conducted by Admiral Stansfield Turner. Student input has been used as a means of obtaining feedback in addition to the examination process. Thus, it would seem that the curriculum revision process is more pragmatic than technical or academic.

The current curriculum covers three broad areas which are: Strategy and Policy, National Security and Decision Making, and Naval Operations. These are taught in trimesters. Each department has one trimester a year free for the revision of curriculum materials, training of instructors and other peripheral duties. Instructional techniques include case studies, after the Harvard system, lectures, research papers, and seminars. Each course uses a combination of formal examinations and student evaluation forms as one method of input into the curriculum revision process.

Army War College

It was not until 1903 that the second war college, the Army War College, was established by then Secretary of War Elihu Root. "The purpose of the institution was 'Not to promote war, but to preserve peace by intelligent and adequate preparation to repel aggression...'"[7] This statement of purpose, similar to that of the Naval War College suggests a strong academic orientation. By the time the Army War College was established the importance of the technical works of Clauswitz had been internationally accepted by the military community. Clauswitz's principles of

war were stressed then and continue to be stressed. This, then, suggests a Technical approach to the curriculum development process. It can also be assumed that much of the basic curriculum outline was patterned after that of the Naval War College, thereby supporting an Academic-Technical Model approach.

The present war college curriculum assumes that the student to be tactically competent and able to move divisional size forces around the modern battlefield. It also assumes that the student, if called upon to do so, could logistically organize and support such units. Thus, the curriculum is organized to teach the maneuver, control, and support of combat units above the Corps level in general war. In order to exercise this type of knowledge the student must be knowledgeable in the areas of the theory of war as a political, social and moral phenomenon, and understanding of the relationship between military force and national political aims.

Because the goals and objectives of the Army War College are oriented the student being able to apply much of the accumulated knowledge of man as it pertains to war and the keeping of the peace. And since the curriculum stems from a task analysis type evaluation of what the senior level military officer must know to properly perform the function of carrying out national policy through the availability and/or use of military force the original curriculum is believed to have resulted from an academic-technico basis.

Updating of the curriculum, like that of the Naval War College, is a pragmatic process based on the inputs of individuals, groups and agencies. Each of the Commandants of the War College have influenced the curriculum based on their professional perceptions. Academians such as Professor Emeritus Deutsch, a renowned World War Two historian, have also greatly influence the curriculum revision process. Groups such as alumnae, career military officers, and student have also left their imprint on the curriculum. Agencies such as the CIA, Department of Defense, Civil Rights Groups, and most notably the Department of State have also provided input. The Department of State's influence is so profound that the Deputy Commandant is a member of the Department with Ambassadorial rank.

National War College

Shortly after World War 2 a National War College was estabblished at Fort Leslie J. McNair in Washington, D.C. This new war college was to replace the Army War College which had gone into a hiatus during the war. There was not any doubt about the need for such an institution, but the need for having one for each service was questioned. The intention of the National War College was to bring together military officers and civilians who were at the senior mid-level range instructing them in those areas deemed necessary to prepare them for positions of senior level responsibility.

Lessons learned in the war suggested that world wide warfare had become so complex that it was necessary to 'cross fertilize' if you will people from many disciplines. It was believed that by doing this military officers from the various services and civilians in government service would better understand the complexities of the respective services and governmental depart ments. It is interesting to note that the Navy Department refused to close down the Naval War College in favor of a unifed school. The Army War College, incidentally, was reconstituted in 1950.

As with the Naval and War College, the institutional memory does not remember how the first curriculum was developed. However, it is safe to assume that its foundation rests in the curricula of both the Naval and Pre-World War Two Army War College. Military Sciences, at the time the curriculum was established in 1946, had become quite technical. The curriculum was obviously developed around at least a perceived assessment of the skills, knowledges and tools required by the institution's graduates to accomplish the mission laid out for them.

These skills and knowledges were probably prioritized in order of importance for only some of what was needed could be taught in the time frame allowed by the school year. This priority schedule was then transformed into curriculum objectives and defined course content. Learning activities, similar to those currently used today included lectures, war games, research, seminars, and interactions with senior military and governmental officials.

There was also an academic flavor to the curriculum planning process. Subject matter disciplines were considered in the development of curriculum goals and objectives. Institutional philosophy and issues pertaining to the psychology of learning also influenced the curriculum goals and objectives process.

Finally both typical student characteristics and societal needs as determined by the Departments of State and Defense, among others, had a tremendous impact on this phase.

Thus, at least at the curriculum goals and objectives point in the curriculum planning process both a Technical and Academic modeling influence was felt. The degree of influence each approach had is open to speculation. In all probability, these two also influence the curriculum content, learning activities and evaluation stages as well.

Curriculum revision processes are more easily defined. They are without a doubt pragmatic. Today's curriculum "has been developed over many years as a result of trial and error and in response to the demands placed upon us (the war college) by the Joint Chiefs of Staff and the

State Department, our sponsoring institutions, and it is quite similar at least in its fundamentals to those of war colleges all over the world."[8]

Air War College

As was the case with the National War College, the Air War College was established after the Second World War. Senior Officers in the newly created Air Force, most of whom had graduated from either the Army or Naval War Colleges, determined that the new service needed its own War College. Thus, the Air War College was established in March of 1946 as the senior service school within the Air University.

Its curriculum, like that of the other War Colleges, was based on the Academic-Technico Models. The foundation for the curriculum was those already in place, or which had been in place before the war. Air power was the cornerstone for the Air War College for obvious reasons. All air warfare doctrine is evaluated at the Air University. The influence of air power on policy and decision making, national affairs, and command and leadership.

Use of the academic model in the curriculum planning process is articulated in the Air University catalogue. "A second group of educational objectives is closely associated with the body of knowledge and expertise that is unique to the military profession."[9] In order to meet this second group of objectives a technical model approach to the curriculum was employed simply as a result of the technical aspects of the Air Force and its mission. The US Air Force is very high-tech oriented and has been since its inception. This establishes a technical mind set which also influences the curriculum planning approach.

As with the other War Colleges curriculum revision is based more on the pragmatic model with a technical model influence. The impact individuals, groups and agencies in the curriculum revision process, at the Air War College as well as the others, cannot be over emphasized. The semi-political interaction between these three elements should not be viewed as being negative, but rather this form of interaction provides for a balanced curriculum designed to satisfy the career development needs of the individual, the service and the country it supports.

Conclusion

The original formula for curriculum development at all four of the War Colleges has been lost in the institutional memories of each of the institutions. Since the Naval War College was founded first it is logical to assume that the model employed by that institution was the basis for curriculum planning of the other institutions. The most likely models were an academic-technico combination. Although the model used was not, in all likelihood, articulated as being one of the four presented in this study it was, by default, based on one or a combination of models discussed. Revision of the War College curricula is pragmatic. Models are intended to explain how things were or are done. By understanding the theory or model behind a process or procedure we can better understand how to influence the process.

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2. Gay, Geneva. "Conceptual Models of the Curriculum-Planning process," Considered Action in Curriculum Improvement. (Alexandria, VA: American Society for Curriculum Development, 1980), p. 124.

3. ibid. p. 127.

4. The Naval War College Catalogue. (Newport, RI: Us Naval War College, 1986). p. 3.

5. ibid. p. 3.

6. Hodgkins, CAPT W.S. Letter to Donald A. MacCuish, Re: Naval War College Curriculum, 2 October 1986.

7. Curriculum Pamphlet Academic Year 1987. (Carlisle Barracks, PA: US Army War College, 1986), p. i.

8. Diebel, Terri L. Letter to Donald A. MacCuish, Re: National War College Curriculum, 28 October 1986.

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